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CLAIMS

1. A process for manufacturing an element (3) having a structured surface with structural features, comprising the steps of
 - a. providing a replication tool (1, 101) having, on a replication surface (1a, 1a', 101a), negative structural features being a negative of at least some of the structural features, and further having a spacer portion (1c, 1c', 101c) protruding from the replication surface,
 - b. providing a preliminary product having a material component in a plastically deformable or viscous or liquid state, and
 - c. bringing said material component in contact with said replication surface while the spacer portion abuts against a stop surface and thus replicating from the replication surface, the structured surface.
2. A process according to claim 1, wherein after step c. the material component is hardened and thereafter the replication tool (1, 101) is removed.
3. A process according to claim 1 or 2, wherein the material component is an epoxy resin.
4. A process according to any one of the previous claims, wherein in steps b. and c. the replication tool (1, 101) is moved against the preliminary product and pressed against it until the spacers abut against the stop surface, whereby the replication process is an embossing process.

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- 5 5. A process according to any one of claims 1-3, wherein the in steps b. and c., the replication tool (1, 101) is placed on or underneath a hard surface serving as said stop face, the spacer portions abutting said hard surface, and then said material component is injected between said replication tool and said hard surface in a viscous or liquid state.
- 10 6. A replication tool (1, 101) for manufacturing a structured element comprising structural features in a process according to any one of claims 1-5, comprising, on a replication surface (1a, 1a', 101a), negative structural features being a negative of at least some of the structural features, and further having a spacer portion (1c, 1c') protruding from the replication surface.
7. A replication tool according to claim 6, wherein the spacer portion (1c) comprises a plurality spacers arranged in a regular pattern.
8. A replication tool according to claim 6, wherein the spacer portion is contiguous.
- 15 9. A replication tool according to any one of claims 6-8, comprising elastomeric material components, for example PDMS.
10. A replication tool according to claim 9 further comprising a rigid back plate (33).
- 20 11. A replication tool according to any one of claims 6-10 further comprising alignment pins (1f).

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12. A replication tool according to any one of claims 6-11, wherein the spacer portion is arranged in a manner that at least one spacer portion border is formed around a replication area in a manner that the spacer portion border at least partially borders the replication area and forms a flow stop or re-directs the liquid material during the replication process.
13. A method for manufacturing a replication tool (1, 101) for manufacturing structured elements having a surface with structural features, comprising the steps of providing an original having at least some of said structural features, and replicating, from the original, a tool having negative structural features being a negative of at least some of said structural features, wherein said tool is provided with a spacer portion protruding from a replication surface.
14. A method according to claim 13, wherein indentations corresponding to negatives of the spacer portion are made in the original, for example by etching.
15. A method according to claim 13, wherein the replicating of the tool comprises the steps of replicating a master tool from the original, providing the master tool with a coating layer, structuring the coating layer in a manner that it forms master protrusions corresponding to the spacer portion, replicating a submaster from the master tool and replicating the tool from the submaster.
16. A method of equipping a master or a sub-master or a master tool for manufacturing a replication tool with a replication surface and a spacer portion, the master or sub-master or master tool comprising a master replication surface with structural features corresponding to structural features of a micro-

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5 optical component to be replicated with the replication tool, or of negatives thereof, the method comprising manufacturing from the master or sub-master or mater tool an equipped master or sub-master comprising an indentation portion being the negative or positive copy of a spacer portion of the replication tool, the spacer portion of the replication tool protruding from the replication surface.